

REMARKS

The objection to the Specification with regard to “meander structures” is traversed. In this connection, attention is directed to paragraph [0012] on page 12 of the Specification. Applicants further note that, like capillary structures and sintered porous materials, “meander structures” is a term well known to those skilled in the art. One such example can be found in the catalytic gas sensor described in U.S. Patent No. 5,902,556 at column 7, lines 48 and 59 to describe the diffusion characteristic of a material used in the sensing element. As should be readily apparent, it is no more reasonably possible or necessary to illustrate meander structures than it is to illustrate claimed capillary or porous structures.

The Examiner is thanked for pointing out at paragraphs 3 and 4 of the Office Action certain informalities in the disclosure and claims. Applicants have attempted to address each of these. Allowed Claims 2 and 3 should now contain no informalities.

The rejections of Claim 1 and 4-18 under 35 USC § 112, ¶¶ 1 and 2, as well as the corresponding drawing objection, are traversed, and reconsideration of each is respectfully requested in light of the foregoing amendment to Claim 1 and the following comments.

The manner in which the liquid medium's boiling point is maintained above the medium's actual temperature in the distributor is seen, for example,

in Fig. 1 at numeral 21 and the blackened area. The corresponding description is found at paragraphs [0024-0026] on pages 7 and 8 of the Specification. That is, the restriction provided by capillaries or porous materials (the blackened area) generates a flow resistance which rises in proportion to the temperature of the distributor unit, thereby keeping the liquid medium's boiling point at a higher temperature than occurs in the distributor unit. Claim 1 now captures the characteristic by reciting that it is "configured such" that ... It is unnecessary to define such structures under § 112, ¶6.

The rejections of Claims 1, 8, 9 and 15-17 as being unpatentable over Stout in view of Yamada et al and Tomimatsu et al, both under 35 USC § 103(a), are traversed. Reconsideration of each of these rejections is respectfully requested.

The Office Action acknowledges that neither Stout nor Yamada et al disclosed use in a fuel cell system. Indeed, Applicants would point out that neither could be so used. They are so unlike the Tomimatsu et al fuel cell and that of the present invention as to underline that impermissible hindsight reconstruction has been employed in their selection for rejecting the aforementioned claims.

The Stout structure involves what is known as a multiple-effect distillation apparatus used in sea water purification and alcohol production. Distillation has nothing whatsoever to do with the present invention. Any

person of ordinary skill in the art seeking to address problems in devices producing reactions by solid-state catalysis would never look to the kind of apparatus found in the Stout patent. The Office Action does not, and cannot, specify the structure in Stout that serves as the distribution unit that feels a liquid medium to an evaporator.

The Yamada et al patent is directed, generally speaking to an evaporator with recirculated liquid which provides a heat transfer surface which uses nuclear boiling to accelerate bubble evolution. The Yamada et al evaporates does not even use parallel tubes. Why one of ordinary skill (presumably in the distillation art) would be motivated to accelerate bubble evolution is not explained. That is, the relevance of nuclear boiling to distillation utilizing vertical baffles remains unclear. Neither have any relevance to the present invention.

The Tomimatsu et al fuel cell involves the evaporation of liquid fuel in a manner entirely different from the other cited prior art. Specifically, the fuel cell has an evaporating section in the form of, for example, a porous body, etc. (col. 14, lines 23-34). Absent hindsight, one skilled in the distillation art would never have looked to any teaching in this patent and vice-versa.

Accordingly, early and favorable action is earnestly solicited.

Serial No. 09/927,909  
Reply Dated: June 1, 2005  
Reply to Office Action of March 1, 2005

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #011210.50294).

Respectfully submitted,

June 1, 2005

  
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